RISK EDUCATION

1999-2009 Overview

Mine and explosive remnants of war risk education (RE) has evolved significantly since the Mine Ban Treaty entered into force in 1999 as many programs have shifted from a purely message-based approach towards efforts to bring about broader behavior change and risk reduction. Overall, there has been a marked—though not universal—shift from "mine awareness" in 1999 to "mine/ERW risk education" in 2008.¹ Influencing risk-taking behavior is very challenging, however, as it is often related to complex economic, cultural, and social factors.

RE seeks to reduce incidents caused by mines, victim-activated improvised explosive devices, and explosive remnants of war (ERW).² When done well, RE involves a combination of actions: raising awareness of the threat, working with communities to identify ways to reduce risk and promote behavior change, providing information to clearance operators (and sometimes even contributing to demining prioritization), identifying development interventions to reduce risk, and contributing to victim assistance by supporting casualty data collection and providing information to survivors about services.

Broader risk reduction approaches were identified within RE programs in at least six states in 2008 (Angola, Cambodia, Colombia, Lao PDR, Sri Lanka, and Vietnam). In these states, programs worked with communities to explore alternative behaviors, improve input into clearance decision-making, and link with other development sectors to decrease the impact of mines and ERW. Similarly, the support of RE to mine action through community liaison has increased. In Vietnam, it has made clearance more efficient, and in Angola it has contributed to land release.

Effective programs are based on a solid understanding of the target groups for RE, and why they are at risk.³ According to Landmine Monitor's review, thorough analysis has unfortunately been lacking in almost all RE programs. Indeed, in 2008 in at least 26 states and areas, RE programs were still being implemented without comprehensive needs assessments.⁴ In **Afghanistan**, for instance, which has the world's oldest mine action program, a European Union evaluation in 2008 found that RE was not based on a good understanding of the target audience.⁵

Risk Education in 2008

In 2008, RE was provided in 57 states and areas, compared to 61 states and areas in 2007. RE activities increased significantly in **Yemen** and **Somaliland**, and also increased to some degree in 10 other states. In **Palestine**, RE decreased in 2008 but rose sharply in response to conflict in Gaza in December 2008–January 2009.

The term "education" reflects a change from simple awareness-raising of the threat—people in affected areas are often already aware there is a problem—to engaging with communities in a dialogue about the problem and possible solutions.

The reference to ERW as well as mines recognizes the fact that UXO or abandoned explosive ordnance causes as many, if not more, casualties than mines in most affected states/areas.

For instance, a 2006 study by MAG and UNICEF in Lao PDR challenged the common assumption that people engage in dangerous livelihood activities through lack of choice, and found that: "[W]hile contributing factors of voluntary exposure were often rooted in poverty, it was rarely perceived by communities or individuals as the only option. More commonly, intentional UXO risk-taking was found to be based on a rational decision-making process involving weighing the potential costs and benefits of a range of available options." Jo Durham, "Needs Assessment in Lao PDR," *Journal of Mine Action*, Issue 11.1, Summer 2007.

⁴ No needs assessments have been conducted in the last three years in the following states and areas: Abkhazia, Afghanistan, Azerbaijan, DRC, Croatia, Egypt, Iran, South Korea, Mauritania, Nagorno-Karabakh, Pakistan, Peru, Russia, Senegal, Somaliland, Syria, Thailand, Uganda, Western Sahara, Yemen, Zambia, and Zimbabwe. Needs assessments were conducted in only limited geographical areas in Chad, Iraq, Mozambique, and Somalia.

Paul Davies and Bruce Todd, "Mid Term Evaluation of the Mine Action Programme in Afghanistan – Final Report," EU Programme for Afghanistan, April 2009, p. 62.

⁶ Ten states with increased RE included: BiH (though it still represented a decrease from 2006), DRC, Cyprus, Eritrea, Guinea-Bissau, Jordan, Mali (in response to an incident), Peru, Tajikistan, and Somalia.

States and other areas with RE in 2008

Africa	Americas	Asia-Pacific	Europe	Commonwealth of Independent States	Middle East and North Africa
Angola	Colombia	Afghanistan	Albania	Armenia	Algeria
Burundi	Ecuador	Cambodia	Bosnia and Herzegovina (BiH)	Azerbaijan	Egypt
Chad	El Salvador	Lao PDR	Croatia	Georgia	Iran
Congo, Democratic Republic of (DRC)	Nicaragua	Myanmar/ Burma	Cyprus	Russia	Iraq
Eritrea	Peru	Nepal	Poland	Tajikistan	Jordan
Ethiopia		Sri Lanka	Kosovo	Abkhazia	Lebanon
The Gambia		Thailand		Nagorno- Karabakh	Syria
Guinea-Bissau		Vietnam			Yemen
Kenya		Taiwan			Palestine
Mali					Western Sahara
Mauritania					
Mozambique					
Rwanda					
Senegal					
Somalia					
Sudan					
Uganda					
Zambia					
Zimbabwe					
Somaliland					
19 states, one area	Five states	Eight states, one area	Five states, one area	Five states, two areas	Eight states, two areas

A decrease in RE due to reduced funding or capacity was reported in 10 states.⁷ Activities decreased in several states and areas in line with a reduced need for RE: **Abkhazia**, **Burundi**, **Kenya**, **Nagorno-Karabakh**, and **Nicaragua**. In **Mozambique** the number of RE beneficiaries reportedly decreased, but there was greater integration of RE activities with clearance activities.

⁷ Ten states with decreased RE due to funding or capacity included: Angola, Chad, Chile, El Salvador, India, Mauritania, Sri Lanka, Thailand, Zambia, and Zimbabwe.

There were no RE programs in several states, although contamination and casualty data indicated that there was probably a need: **China**, **Republic of the Congo**, **India**, **North Korea**, **Kuwait**, **Libya**, **Philippines**, **Rwanda**, and **Turkey**. In **Myanmar**, several needs assessments have been conducted in the past few years, but only limited RE activities have been undertaken due to the ongoing conflict.

In most other states and areas, the level of RE remained the same as in 2007, or data for 2008 were not available for comparison.

Risk education targeting

Information about who is at risk, and why, should be analyzed from contamination data, casualty data, landmine impact surveys, and knowledge, attitude, and practice (KAP) surveys. Casualty data has shown that the overwhelming number of incidents result from engagement in livelihood activities, particularly farming, herding, and collecting food, fuel, water, building materials, and scrap metal for sale. Scrap metal collection was reported as a risk activity in at least 14 states and areas. In Lao PDR it caused 32% of casualties in 2008.

Traveling (including crossing borders, sometimes illegally, as in **Greece** and **Thailand**) results in casualties, as does tampering either to defuze ordnance or because of curiosity, particularly among children and young adults. The majority of casualties were men, although in some states women and children made up a significant proportion of casualties (see Casualty data section above).

Refugees and internally displaced persons (IDPs) are particularly vulnerable, whether in the place they are displaced to, while traveling, or on their return home. In 2008, RE programs targeting refugees and IDPs were reported in at least 19 states. In 2008, in **Cyprus** and **Greece**, illegal immigrants became mine casualties.

People are also at risk when hazardous areas are unmarked, or where marking is inadequate or not maintained, as is the case in a large proportion of states, for example in **Angola** and **Turkey**. Areas contaminated by cluster munition remnants, such as in south **Lebanon**, are very difficult to mark.

In many states, needs assessments, including KAP surveys, are conducted as part of ongoing information-gathering during RE activities. In 2008, assessments and surveys for nine states were made available to Landmine Monitor: in Cambodia, Eritrea, Ethiopia, northern Iraq, Nepal, Pakistan, Serbia, Somalia, and Vietnam. Only three—Ethiopia, Nepal, and Somalia—suggested that people lacked awareness or knowledge. 10 Most research found that people were generally aware of the risks posed by mines/ERW but still engaged in dangerous behavior.

In **Serbia**, for instance, high-risk behavior was reported in more than 90% of surveyed contaminated areas. According to a 2009 report by Norwegian People's Aid (NPA), inhabitants of affected communities "seem to underestimate the threat" from unexploded submunitions." The "frequency of incidents is such that the probability of activating unexploded submunitions will rise with the growing needs of the population to use the blocked land." ¹²

In northern Iraq, a UNICEF/Handicap International (HI) survey said that general knowledge about mines and UXO was good and most affected people had participated in at least one RE session. Even so, some of their knowledge was still rather superficial (for example about marking signs and evacuation procedures from a minefield) and some impacted villages had not yet received RE. In some districts women were usually "less knowledgeable" than males

Scrap metal collection was reported in: Albania, Algeria, BiH, Egypt, Georgia, Iraq, Jordan, Kosovo, Lao PDR, Palestine, Sri Lanka, Uganda, Vietnam, and Yemen.

There were RE programs for IDPs and refugees in: Afghanistan, Croatia, DRC, Eritrea, Ethiopia, the Gambia, Georgia, Greece, Iraq, Kenya, Kuwait, Philippines, Rwanda, Senegal, Somalia, Sri Lanka, Sudan, Uganda, and Zambia.

GICHD, "A Needs and Capacities Assessment for MRE in Somali Region, Ethiopia," Geneva, 20 May 2008; UNICEF/Centre for Research on Environmental Health and Population Activities, "Knowledge, Attitude and Practice Survey: Improvised Explosive Devices, Landmines and other Explosive Remnants of War," Short version, Nepal, January 2008, p. 13; and Washington Okeyo, "KAP Survey Report 2008," HI, November 2008, p. 2.

¹¹ NPA, "Report on impact of unexploded cluster submunitions in Serbia," January 2009, p. 45.

¹² Ibid. p. 48.

(but also less exposed to the risk). Children, thanks to the schools program, were usually "more knowledgeable" than adults.¹³

Methods of implementing risk education

Although there has been an increase in integrated efforts, RE in 2008 often focused on the dissemination of simple messages about the threat, rather than an integrated effort to reduce risk-taking behavior. These messages continued to be delivered in a number of ways: by teams hired for the purpose; community-based methods, through the training of community leaders, religious leaders, or churches; integration into the school curriculum; mass media; and the distribution of materials.

While most programs acknowledged the importance of 'communication-for-behavior-change' within a broader risk reduction strategy, only a minority was able to turn theory into practice during 2008. **Angola** used a solution-based methodology in which NGOs worked with community focus groups to discuss the mine/ERW problem and identify solutions. Participatory rural appraisal techniques such as community mapping and seasonal calendars were applied. **Cambodia** used livelihood/integrated mine action approaches, law enforcement, and monitoring of the scrap metal trade to reduce risk.

In Colombia, the ICRC and Colombian Red Cross conducted risk reduction activities to ensure communities had safe access to important resources such as water, schools and agricultural land. Lao PDR adopted a behavior-change-communication approach in 2008 based on discussions of options and minimizing risk for intentional adult risk takers. A foundry project implemented by the Mines Advisory Group (MAG) in Lao PDR conducted safety training for scrap metal collectors. In Sri Lanka, RE teams acted as a link to emergency relief agencies. In Vietnam, the Golden West Humanitarian Foundation launched a project to reduce the risk of scrap metal collection by setting up 28 "safe holding areas."

In at least 24 states and areas, community liaison, particularly links between affected communities and demining, was reported to take place. The level and type of links varied from country to country. In **Angola**, for example, RE organizations liaised closely with provincial mine action centers and provided information to communities on how to report contamination and casualties. MAG's community liaison teams were mainly engaged in survey in support of land release and impact assessments. In **BiH**, Community Integrated Mine Action Plans involved communities in decision-making. In **Vietnam**, MAG reported that its community liaison capacity, established in late 2007, had led to an improvement in clearance productivity by approximately one-quarter, as a result of improved quality of information and trusted reporting structures developed with stakeholders. At least four states operated hotline numbers for civilians to report contamination.

About half of all RE programs in 2008 could be described as community-based.¹⁷ Community members, often volunteers, were trained (usually by NGOs, but also by national authorities) to disseminate RE messages, and often to act as mine action focal points, providing information about contamination and casualties, and sometimes feeding into local priority-setting. Some programs included child-to-child methods.¹⁸ In at least 15 states and areas, the national Red

¹³ UNICEF/HI, "MRE Knowledge, Attitudes and Practices Survey in Northern Iraq 2008: Impact Monitoring Report," 2008, p. 76.

¹⁴ The 24 states/areas with some form of community liaison were: Abkhazia, Albania, Angola, Azerbaijan, BiH, Burundi, Cambodia, Chad, DRC, Eritrea, Ethiopia, Iraq, Jordan, Kosovo, Lao PDR, Lebanon, Mozambique, Senegal, Sri Lanka, Somaliland, Sudan, Uganda, Vietnam, and Yemen.

¹⁵ Email from Ruth Bottomley, Community Liaison Manager Southeast Asia, MAG, 23 July 2009.

¹⁶ Examples of states with hotlines for civilians: Ecuador, Georgia, Guinea-Bissau, and Vietnam.

States/areas with community-based RE programs: Afghanistan, Albania, Angola, Azerbaijan, BiH, Burundi, Cambodia, Chad, Colombia, DRC, Ecuador, Guinea-Bissau, Iraq, Jordan, Lebanon, Lao PDR, Mozambique, Nepal, Senegal, Somalia, Sri Lanka, Somaliland, Sudan, Tajikistan, Thailand, Uganda, Yemen, and Zimbabwe.

¹⁸ Child-to-child methodology uses children and youth as a resource in RE.

Cross and Red Crescent societies delivered RE and engaged in mine action through their volunteer networks.¹⁹

RE was implemented directly by the mine action centers in only a few cases, and then often by military personnel.²⁰ In several states the army and police were involved in the dissemination of RE messages. In a small number of cases, RE was also reported to be conducted alongside clearance by the clearance teams themselves:²¹ in **Moldova** and **Poland** this was the only type of RE provided.

In **Vietnam**, district mobile communication teams operating in 2008 were funded by UNICEF, and while a UNICEF evaluation commended the project as an innovative experiment, it concluded that the project was "not a cost effective, efficient or appropriate vehicle for disseminating messages to the public."²²

School-based RE is an effective way of reaching many children, and integrating RE into existing structures can make it more cost effective and sustainable. By 2008, RE had been integrated into the curriculum in 13 states and areas²³ and was conducted in schools in at least 15 other states and areas.²⁴ However, school-based RE has its limitations and, therefore, cannot be used as the sole tool for RE. School-based RE is essentially a one-way provision of information and in some states children are not even the primary target group, based on analysis of risk. In **BiH** school-based RE did not appear to be fully functional, and in **Vietnam** UNICEF found that results in schools without RE in the curriculum were indistinguishable from those where it was included. In some states efforts to integrate RE fully into the curriculum were unsuccessful, due to a lack of resources or commitment from education ministries (though some school-based RE was still conducted).²⁵

RE messages were sometimes integrated with other non-mine action messages and other sectors: in **Sri Lanka** with child protection messages; in **Nepal** as part of a social mobilization program; in **Angola** with HIV/AIDs messages; in **Senegal** with child protection and stress management/conflict prevention; in **Afghanistan** with disability advocacy; and in a number of states with small arms and light weapons (SALW) messages.

Emergency risk education

Emergency RE was conducted during and after conflict in 2008 in **Chad**, **Georgia**, **Somalia**, and **Sri Lanka**, and in early 2009 in Gaza. Other states that reported emergency RE were **Nepal** and the **DRC**.

Legal obligations to provide risk education

Article 6(3) of the Mine Ban Treaty calls on each State Party "in a position to do so" to provide assistance for mine awareness programs. There is no specific requirement on affected states to provide RE to those at risk. ²⁶ The Convention on Cluster Munitions provides stronger support

¹⁹ Red Cross and Red Crescent RE activities in: Afghanistan, Albania, Angola, Azerbaijan, BiH, Cambodia, Colombia, Croatia, Iran, Iraq, Jordan, Kyrgyzstan, Nepal, Tajikistan, and Western Sahara (Moroccan Red Crescent Society).

²⁰ Mine action center RE in: Chad, Eritrea, northern Iraq, Thailand, Yemen, and Zimbabwe.

²¹ RE alongside clearance in, for example, Albania, Azerbaijan, Burundi, Ethiopia, and Mozambique.

²² Centre for Community Empowerment CECEM, "UNICEF Vietnam Support to Mine Risk Education," Evaluation report (draft), 20 August 2008, p. vii.

²³ RE integrated into curriculum in: Afghanistan, Azerbaijan, BiH, Cambodia, Chad (in 2009), Eritrea, Lao PDR, Mozambique, Nagorno-Karabakh, Nepal (in 2009), Sudan, Vietnam, and Zambia.

²⁴ RE conducted in schools in: El Salvador, Georgia, Guinea-Bissau, Iran, Iraq, Kosovo, Mauritania, Nicaragua, Palestine, Peru, Poland, Senegal, Syria, Thailand, and Uganda.

²⁵ Efforts to integrate RE into curriculums were not successful in: Albania, Angola, Belarus, Sri Lanka, and Tajikistan.

The July 2009 draft of the Cartagena Action Plan to be adopted by the Second Review Conference of the Mine Ban Treaty called on States Parties to: "Provide mine risk reduction and education programmes to communities at risk that are in coherence with national standards and the International Mine Action Standards, age-appropriate and gender-sensitive, tailored to their needs, and integrated into education systems, mine action, relief and development activities." "A Shared Commitment, Draft Cartagena Action Plan 2010 – 2014, Ending The Suffering Caused By Anti-Personnel Mines," Geneva, 17 July 2009, p. 4, Action 18.

for programs in areas affected by unexploded submunitions; it specifically obliges affected States Parties to conduct "risk reduction education to ensure awareness among civilians living in or around cluster munition contaminated areas of the risks posed by such remnants," taking into consideration the provisions of Article 6 on international cooperation and assistance.²⁷ In conducting RE, States Parties are also required to take into account international standards, including the International Mine Action Standards (IMAS).²⁸

Measuring the impact of risk education

Evaluations of RE programs were conducted in at least six states in 2008,²⁹ and several needs assessments also provided information on the effectiveness of RE programs. All evaluations recommended a greater focus on behavior change interventions and less emphasis on conventional information dissemination, with a better understanding of the target audience as none of the programs in question were assessed as doing this effectively or sufficiently. Other recommendations included better planning, implementation of standards, making RE sustainable, and using lessons learned from elsewhere.

According to a joint article by UNICEF and the Geneva International Centre for Humanitarian Demining (GICHD), "as with all mine-action activities, [for RE] distinguishing between outputs and outcomes has proven elusive." In other words it is easier to measure the number of people attending RE sessions, or the number of posters distributed, than it is to measure behavior change or whether RE is the determining factor in a reduction of casualties. Several evaluations reported that although it is difficult to measure the impact in a short period of time, the projects had resulted in behavior change. However, a review by Landmine Monitor of RE programs over the last 10 years provides next to no examples of where baseline data on knowledge, attitudes, and practice has been collected and then used as an indicator of change. ³¹

In many states, statements were issued in 2008 to the effect that RE has contributed to the reduction of incidents.³² Yet a correlation between casualty figures and RE activities, while an important indicator, is not sufficient alone to show the effectiveness of an RE program, as other factors may result in a reduction in casualties such as clearance, community awareness through the occurrence of incidents, or population movements. The Centre for Community Empowerment's (CECEM) RE evaluation in **Vietnam** in 2008 admitted that "it is difficult to determine causality of association between UNICEF's MRE program and its project aim of reducing the incidence and severity of injuries caused by UXO/landmines," but believed that "UNICEF can claim due credit for contributing towards a decline in mortality and morbidity rates linked to UXO/mines in recent years."³³ In **BiH**, however, neither of two major evaluations in 2007 identified a causal relationship between RE implementation and casualty rates.³⁴

While beneficiary numbers are useful to show the extent of RE activity, alone they do not provide an indicator of its effectiveness. They say nothing about the quality of RE and whether it is targeted to at-risk groups, and are usually not compared with the number of people at risk. Moreover, it is very difficult to gather accurate beneficiary numbers, particularly when,

²⁷ Article 4(2)(e), Convention on Cluster Munitions. Article 6 provides that "each State Party in a position to do so shall provide assistance... to identify, assess and prioritise needs and practical measures in terms of...risk reduction education...as provided in Article 4 of this Convention."

²⁸ Article 4(3), Convention on Cluster Munitions.

²⁹ There were evaluations in: Afghanistan, Cambodia, Colombia, DRC, Lao PDR, and Vietnam.

³⁰ Sharif Baaser, Eric M. Filippino, and Hugues Laurenge, "Mine-risk Education in Mine Action: How is it Effective?" The Journal of ERW and Mine Action, Issue 13.1, Summer 2009, p. 45.

³¹ This is partly because evaluations often recommend better data collection, as there often was no baseline information to work with. Additionally, even if information is contained in assessments or surveys, it is often not updated systematically to reflect changes in information so that it remains useful for planning.

³² In the following states the national authorities and/or RE operators made statements in 2008 to the effect that RE had resulted in a reduction in casualties, or this statement was made in evaluations: Afghanistan, Albania, Chad, Ecuador, the Gambia, Georgia, Jordan (though overall there was an increase in ERW casualties in 2008), Mozambique, Nicaragua, Russia, Rwanda, Senegal, and Sri Lanka.

³³ CECEM, "UNICEF Vietnam Support to Mine Risk Education," Evaluation report (draft), 20 August 2008, p. iv.

³⁴ See Landmine Monitor Report 2008, p. 170.

as is usually the case, RE is conducted through community volunteers or integrated in other institutions, such as schools or the health sector. A much better indicator of the effectiveness of RE is the extent of reporting of contamination by the public. In several states this was noted as a positive indicator for the RE programs.³⁵

Risk education coordination, management, and capacity-building

In the overwhelming majority of concerned states and areas, RE in 2008 was managed and coordinated by national authorities. In a small handful, UNICEF was the *de facto* coordinator, or played a significant role in coordination and management.³⁶ In Somalia, UNDP and the Swedish Rescue Services Agency managed RE.

In some states technical advisors were placed with the national authorities by the UN or an NGO.³⁷ The ICRC provided support to the many national Red Cross and Red Crescent societies conducting RE. In at least nine other states, UNICEF, the ICRC and international NGOs provided some capacity-building support through coordination meetings and funding.³⁸

Other methods of capacity-building included study visits (for instance, UNICEF supported Iraqi managers to visit Cambodia, and Eritrean managers to visit Kenya). International organizations provided short courses or training workshops to mine action centers and NGO personnel.³⁹ In a number of states, international NGOs partnered with national NGOs to build capacity, as in Angola, the DRC, and Vietnam.

The provision of international expertise, however, does not guarantee that best practices based on lessons learned over 10 years of RE are being put in place. Thus, an International Mine Risk Education Advisory Group was set up in 2008 to help disseminate best practices, and it had met twice by August 2009. New resources developed for use at an international level include the "Mine and ERW Risk Education: a project management guide" by GICHD in November 2008 and an "Emergency Mine Risk Education Resource Kit" developed by UNICEF in 2008.⁴⁰

The IMAS for RE were under revision as of September 2009. In 2008, the IMAS or national standards were reported as being used in at least 12 states.⁴¹

Risk Education from 1999 to 2008

In 1999, RE programs were identified in just 14 states: Afghanistan, Angola, BiH, Cambodia, Colombia, Croatia, Iraq, Lao PDR, Lebanon, Mozambique, Nicaragua, Rwanda, Sudan, and Yemen. Other limited mine awareness activities, mainly material distribution and the delivery of messages through the mass media, were identified in a further 21 states and areas. ⁴² Over the last ten years, the number of states where RE has been conducted has increased significantly, to 57 in 2008, as has the level of activity within these states.

The understanding of the most effective way of delivering RE has changed since 1999. Back then, the prevailing assumption was that incidents took place because people were unaware of the risk from mines and ERW. In 1999, Landmine Monitor stated that, "The local population must learn how to live their daily lives in mine and UXO infested areas until the threat is

³⁵ Reporting by the public was noted in, for example, Azerbaijan, Jordan, Nicaragua, and Sri Lanka.

³⁶ UNICEF had a key role in, for example, DRC, Iraq, Nepal, Palestine, Sri Lanka, Sudan, and Vietnam.

³⁷ For instance, in Lao PDR by MAG, Uganda by DDG, and in Eritrea and Jordan by UNICEF.

³⁸ There was UNICEF, ICRC, and NGO capacity-building in, for example, Angola, Chad, Columbia, Eritrea, Ethiopia, the Gambia, Guinea-Bissau, Lebanon, and Senegal.

³⁹ There were international organization courses in: BiH, Somalia and Sri Lanka.

⁴⁰ According to UNICEF, since its production the Emergency MRE Toolkit has been used to develop an MRE intervention in Gaza (2008–2009), Pakistan (2009), and by UNICEF in the Philippines (September 2009). Email from Judy Grayson, Senior Adviser, Landmines and Small Arms Cluster, Child Protection Section, UNICEF, 14 September 2009.

⁴¹ IMAS or national standards were used in: Afghanistan, Albania, Angola, BiH, Cambodia, DRC, Iraq, Jordan, Lao PDR, Sri Lanka, Uganda, and Zambia.

⁴² RE activities were also identified in: Albania, Belarus, Burundi, Costa Rica, Egypt, El Salvador, Ethiopia, Guatemala, Jordan, Namibia, Nagorno-Karabakh, Palestine, Senegal, Tajikistan, Thailand, Uganda, Vietnam, Western Sahara, the former Yugoslavia, and Zimbabwe.

removed."⁴³ In Cambodia, a significant number of people had received RE by 1999, but Landmine Monitor reported that, "it is evident given the number of accidents that result from tampering with mines that many people lack or have incorrect knowledge about the dangers of mines/UXO, especially children."⁴⁴ The use of mass media and posters were highlighted as an important component of RE.⁴⁵

By 2000, Landmine Monitor stated that RE, "is a community-level education program that seeks to provide (or generate) viable alternatives to high-risk behavior to populations living or working in, or traveling through, mine-affected areas. It works best on the basis of two-way information exchange, learning from communities how they survive the daily threat of landmines and unexploded ordnance (UXO), and working cooperatively to identify how the risk of death and injury can be minimized. Mine awareness is frequently confused with public information about the effects of mines and UXO. Such information campaigns are extremely valuable but do not in a strict sense constitute mine/UXO awareness programs." Landmine Monitor emphasized the importance of needs assessments and the gathering of baseline data to understand the target audience, and questioned the effectiveness of the use of mass media and posters. This understanding of RE is the one that has prevailed over the last 10 years, and is the one reflected in the IMAS for Mine Risk Education (MRE) which were first released in December 2003. The number of programs that have adopted this approach has grown, though, as Landmine Monitor 2009 research has shown, many have failed to do so sufficiently.

The Future of Risk Education

In order for RE to effectively contribute to casualty reduction through behavior change, and to support clearance activities and victim assistance, a number of areas need to be strengthened. First and foremost, all RE programs that seek to be effective should be based on a thorough understanding of the needs of the target audience, and greater effort should be invested in needs assessments, not just to know activity at the time of incident, but to understand the reasons for risk-taking (economic, social, cultural), and how behavior change or risk reduction strategies can address this.

Greater efforts will need to be exerted to ensure best practices are put in place and to share lessons learned from RE programs across the world. International advisors should have the appropriate skills, experience, and expertise, and more effort should be made to transfer knowledge and experience across mine/ERW-affected states. New projects are frequently established that fail to take on the lessons learned in other programs. Good resources have been produced, and their use should be promoted.

For RE to become more effective in changing behavior, reducing risk, and reducing the number of casualties, programs need to be more systematically evaluated, using appropriate evaluation methodologies and indicators and, where recommendations are made, they should be implemented. Thus, evaluations in 2008 in **Cambodia**, **Eritrea**, and **Vietnam** recommended the implementation of behavior-change strategies. Other states and areas, which have not had adequate evaluations, would likely benefit from similar approaches.

While it is true that evaluating behavior change is very difficult, it must be acknowledged that the majority of programs have not made efforts to do this. Programs in at least 28 states and areas have not been evaluated for at least three years, including some dealing with significant mine and UXO problems such as **Angola**, **Iraq**, **Sudan**, and **Yemen**.⁴⁹

⁴³ See Landmine Monitor Report 1999, p. 22.

⁴⁴ Ibid, p. 403.

⁴⁵ Ibid, p. 23.

⁴⁶ See Landmine Monitor Report 2000, p. 33.

⁴⁷ Ibid, pp. 35–36.

⁴⁸ Ibid, pp. 34–35.

⁴⁹ Programs without evaluations for at least three years include: Angola, Azerbaijan, Croatia, Georgia, Iran, Iraq, Kosovo, Kyrgyzstan, Mauritania, Nagorno-Karabakh, Nepal, Palestine, Peru, Russia, Senegal, Somalia, Somaliland, Sudan, Thailand, Uganda, Western Sahara, Yemen, Zambia, and Zimbabwe. States with smaller RE programs that have not been evaluated in the last three years are: Ecuador, El Salvador, Nicaragua, and Syria.

In the next few years, the need for RE will probably decrease in most cases as a result of clearance, and stand-alone RE programs will no longer be required in many. Programs should increasingly look at integration into national structures to ensure sustainable and more cost-effective ways of implementing RE. This includes linkages with other messages, for example on SALW.

Finally, effective rapid-response emergency capacities need to remain in place. While conducting RE during conflict is challenging, a number of programs have been able to carry out emergency RE interventions with some success, such as in **Afghanistan** (2001–2003), **Sudan** (2005), **Nepal** (2006–2007), and **Gaza** (2008–2009).